## **Protocol Development Summary**

Western Snowy Plover (Updated 4/1/10)

Parks where protocol will be implemented: GOGA

# Justification/Issues being addressed:

Western Snowy Plover (*Charadrius alexandrinus nivosus*) are a federally threatened species that winters on the beaches of Golden Gate National Recreation Area. Snowy Plovers are of significant management concern for the park which has been undergoing a negotiated rulemaking process for visitor and dog access to Ocean Beach. Recreational activities, especially dog walking, are known to cause significant amount of disturbance to the wintering plovers. Western snowy plovers are also considered good indicators of the condition of the native coastal dunes ecosystem.

There is a 20 year history of monitoring Snowy Plovers at GOGA by PRBO Conservation Science (NPS 2006, Hatch 1996). Monitoring is conducted in coordination with other agencies and groups including USFWS Wildlife Refuges (San Francisco Bay), NOAA- Marine Sanctuaries (BEACH WATCH and COAST WATCH programs); and PRBO Conservation Science. Data are used by NPS and FWS for reporting on ESA and for guiding conservation of the species with targets to delist.

# **Specific monitoring objectives are:**

- 1. Determine trends in Snowy Plover winter season average population size at Ocean Beach and Crissy Field.
- 2. Determine trends in the spatial distribution of Snowy Plovers during the winter season at Ocean Beach and Crissy Field.

### **Basic Approach:**

Beach censuses will be conducted at GOGA during winter season (Sept – March); data collected two times per week at all GOGA sites; data includes number of plovers, number and type of recreationists, number of dogs, number of predators. The protocol for wintering plovers was originally developed by PRBO Conservation Science and is being refined to meet NPS I&M Program standards. The monitoring has been and will continue to be funded by the parks. The SFAN I&M program supplemented funding in recent years but its main obligation is to assist the park with developing a peer reviewed long-term monitoring protocol.

### **Principal Investigators and NPS Lead:**

Bill Merkle, GOGA Wildlife Biologist (415-331-2894) and Marcus Koenen, Network Coordinator (415-331-5734)

Proposed Development schedule, budget, and expected interim products:

The annual budget for monitoring is approximately \$19,000. About half of this is used by the park to hire a volunteer coordinator/intern to coordinate volunteer surveys. The remaining portion of funding goes to the GOGA wildlife biologist to oversee the monitoring, analyze and report results. SFAN I&M program provides in-kind services to assist with data management and reporting.

#### Literature:

- Hatch, D. A. 1996. Western Snowy Plover (a federally threatened species) wintering population and interaction with human activity on Ocean Beach, San Francisco, Golden Gate National Recreation Area, 1988 through 1996.
- NPS. 2006. Status Report: Western Snowy Plovers and Recent Changes in Human and Dog Use within the Snowy Plover Management Area at Ocean Beach and the Wildlife Protection Area at Crissy Field. Golden Gate National Recreation Area. Unpublished Report.